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The Mexican species of the following genera have been brought together: *Beau-carnea* (3 new), *Dasyllirion* (1 new), *Nolina* (3 new), *Castalia* (1 new), *Benthamantha* (3 new), *Dolicholus* (3 new), *Odonia* (3 new), sessile-flowered species of *Parosela* (5 new), some Mexican species of *Ionoxalis* (17 new), *Lotoxalis* (3 new), *Terebinthus* (7 new). The North American species of *Krameria* are presented, 3 being new. New species are also described under the following additional genera: *Echeandia*, *Clematis* (2), *Potentilla*, *Alchemilla* (2), *Pithecolobium*, *Bauhinia* (3), *Cassia* (4), *Hoffmanseggia*, *Cologania* (2), *Geranium* (3), *Linum* (2), *Polygala* (3), *Abutilon*, *Wissadula* (2), *Hypericum* (4), *Calceolaria*, *Opuntia*, *Echinocactus*, *Arracacia* (2), *Deanea* (4), *Eryngium* (2), *Prionosciadium*.—J. M. C.

### NOTES FOR STUDENTS

**Plant diseases.**—JONES and MORSE have published further results of their studies of the Irish-potato diseases in Vermont.<sup>6</sup> Spraying late potatoes with Bordeaux mixture for late blight and rot, due to *Phytophthora infestans*, gave an average gain per acre, during fifteen years and covering a number of varieties, of 119 bushels. Against early blight, due to *Alternaria solani*, three sprayings with Bordeaux gave very much increased yields. When loss from rot is anticipated, potatoes should be exposed as long as possible to the sun and air before being placed in storage. Cold storage was found to reduce greatly the damage from rot during storage. Liming and formalin disinfection were of no value. Against potato scab, due to *Oospora scabies*, formalin gas proved effective, even better results secured in this manner than by soaking in formalin solutions.

STEWART, EUSTACE, and SIRRINE have published the results of the fourth year of their ten-year spraying experiment with potatoes.<sup>7</sup> Soda-Bordeaux did not prove more satisfactory than the usual lime-Bordeaux. In thirteen of the experiments reported the average gain due to spraying was \$20.04 per acre, while the average cost of spraying for the same experiments was \$4.25 per acre.

COBB presents further studies on the gumming of sugar cane,<sup>8</sup> a bacterial disease, due to *Bacterium vascularium* (Cobb) Greig-Smith, first described by the same author from Australia. One of the prominent symptoms of the disease is the escape of a yellowish slime or gum from the cut end of the stem. The disease affects chiefly the vascular bundles, but the parenchymatous tissues are also attacked, and in the upper part of the stem cavities, which contain as

<sup>6</sup> JONES J. R. and MORSE, W. J., Potato diseases and their remedies. Rept. Vt. Exp. Stat. 18:272-291. 1906.

<sup>7</sup> STEWART, F. C., EUSTACE, H. J., and SIRRINE, F. A., Potato spraying experiments in 1905. Bull. N. Y. Geneva Exp. Stat. 279:151-229. pl. 1-5. map 1. 1906. See also Bull. N. Y. Geneva Exp. Stat. 264:93-204. pl. 1-16. map 1. Rev. in BOT. GAZETTE 41:364. 1906.

<sup>8</sup> COBB, N. A., Third report on gumming of the sugar-cane. Bull. Div. Path. and Phys. Hawaiian Sugar Planters' Assoc. 3:1-46. figs. 1-12. 1905.

much as a teaspoonful, are often filled with this yellow slime. Some sorts of cane seem to be quite resistant to the disease, and in their use, as well as in taking care to avoid diseased cuttings or "seed cane," are to be found the principal means of combating the disease.—E. MEAD WILCOX.

**Items of taxonomic interest.**—J. HUBER (Boletim Mus. Goeldi 4:510-619. 1906), in his sixth paper on the plants of the Amazons, describes a new genus (*Browneopsis*) of Leguminosae (Caesalpineae).—F. S. COLLINS (Rhodora 8:189-196. 1906), in presenting a synopsis of the species of *Acrochaetium* and *Chantransia* in N. Am., describes 2 new species of the former.—B. L. ROBINSON (*idem* 196-199), in discussing the nomenclature of the New England Lauraceae, shows that under the Vienna rules "spice bush" bears the name *Benzoin aestivale* (L.) Nees, and "sassafras" the name *Sassafras variifolium* (Salisb.) Ktze., thus happily getting rid of two "duplicate monomials;" and in the same issue (202-204) he shows that the well-known "queen of the prairie" (*Spiraea lobata*) becomes *Filipendula rubra* (Hill) Robinson.—J. C. ARTHUR (Bull. Torr. Bot. Club 33:513-522. 1906) has described new species of Uredineae under *Uromyces* (2), *Puccinia* (2), *Melampsora*, *Uredo* (3), *Caeoma*, and *Aecidium* (3).—W. H. BLANCHARD (Rhodora 8: 169-180. 1906) has published 9 new species of *Rubus* from Maine.—M. L. FERNALD (*idem* 181-185) has published a new species and several new varieties of *Carex* from eastern N. Am.—D. PRAIN (Annals of Botany 20:323-370. pls. 24-25. 1906) in a revision of *Meconopsis* recognizes 27 species, four being described as new; and in a revision of *Cathcartia* he recognizes 4 species, one of which is new.—In a fascicle of 27 papers on Weberbauer's collections of Andean plants, edited by IGN. UNBAN (Engler's Bot. Jahrb. 37:503-646. 1906), a large number of new species are described, and new genera are established in Leguminosae (*Weberbauerella*) by E. ULRICH and in Asclepiadaceae (*Steleostemma*, *Schistonema*, *Pentacyphus*, *Tetraphysa*, *Stelmatocodon*) by R. SCHLECHTER.—P. DIETEL (Ann. Mycol. 4:421-423. 1906) has described a new genus (*Chnoopsora*) of Uredineae from India.—T. D. A. COCKERELL (Nature 75: 7. 1906), in a note on "the evolution of the Colorado spiderwort," incidentally describes and names a new species (*Tradescantia universitatis*).—J. M. C.

**Scottish peat mosses.**—Under a grant from the Royal Society of Edinburgh, FRANCIS J. LEWIS has been investigating the plant remains in the Scottish peat mosses, and some of the results are now published.<sup>9</sup> In the southern uplands the peat in all the districts examined shows a definite stratification of plant remains, indicating a swing from woodland to heath and moss, and again to woodland. In some districts an arctic plant bed is interposed between the lower and upper woodland beds. The regularity of the sequence of the beds

<sup>9</sup> FRANCIS, J. LEWIS, The plant remains in the Scottish peat mosses. I. The Scottish southern uplands. Trans. Roy. Soc. Edinburgh 41:699-723. pls. 6. 1905. II. The Scottish Highlands. *Idem* 45:335-360. pls. 4. 1906.

The history of the Scottish peat mosses and their relation to the Glacial period. Scottish Geog. Mag. 1906:241-252.